

FILE 'USPAT' ENTERED AT 07:36:42 ON 17 OCT 96

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* W E L C O M E T O T H E *
* U. S. P A T E N T T E X T F I L E *
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=> set step on

SET COMMAND COMPLETED

=> set high on

SET COMMAND COMPLETED

=> s 451/clas

L1 42159 451/CLAS

=> s teeth (5a) abrasive layer

L2 (102009) TEETH

L3 (33279) ABRASIVE

L4 (454996) LAYER

L5 (352) ABRASIVE LAYER
(ABRASIVE (W) LAYER)

L6 1 TEETH (5A) ABRASIVE LAYER

=> dis 16 cit

1. 5,015,266, May 14, 1991, Abrasive sheet and method for manufacturing the abrasive sheet; Motokazu Yamamoto, 51/293, 295, 298 [IMAGE AVAILABLE]

=> s cutting wheel (5a) tooth?

L7 (192310) CUTTING

L8 (174852) WHEEL

L9 (1445) CUTTING WHEEL
(CUTTING (W) WHEEL)

L10 (86859) TOOTH?

L11 50 CUTTING WHEEL (5A) TOOTH?

=> s l11 and abrasive layer

L12 (33279) ABRASIVE

L13 (454996) LAYER

L14 (352) ABRASIVE LAYER
(ABRASIVE (W) LAYER)

L15 0 L11 AND ABRASIVE LAYER

=> s l14 and cutting wheel

L16 (33279) ABRASIVE

L17 (454996) LAYER

L18 (352) ABRASIVE LAYER
(ABRASIVE (W) LAYER)

L19 (192310) CUTTING

L20 (174852) WHEEL

L21 (1445) CUTTING WHEEL

(CUTTING (W) WHEEL)

L22 6 L14 AND CUTTING WHEEL

=> dis l22 1-6 cit

1. 5,024,026, Jun. 18, 1991, Segmental grinding wheel; William B. Korb, 451/542; 76/37, 45; 451/547 [IMAGE AVAILABLE]

2. 4,339,896, Jul. 20, 1982, Abrasive compact dressing tools, tool fabrication methods for dressing a grinding wheel with such tools; Mahlon D. Dennis, et al., 51/298, 297, 307, 308, 309; 125/39 [IMAGE AVAILABLE]

3. 4,300,522, Nov. 17, 1981, Compact dressing tool; Robert L. Henry, et al., 125/11.01, 11.03, 39; 407/114 [IMAGE AVAILABLE]

4. 4,180,048, Dec. 25, 1979, **Cutting** **wheel**; Barrie F. Regan, 125/15; 451/546 [IMAGE AVAILABLE]

5. 3,886,925, Jun. 3, 1975, **Cutting** **wheel**; Barrie F. Regan, 125/15; 451/541 [IMAGE AVAILABLE]

6. 3,885,548, May 27, 1975, **Cutting** **wheel** assembly; Barrie F. Regan, 125/15; 206/303; 451/541 [IMAGE AVAILABLE]

=> dis l22 1-6 ab

US PAT NO: 5,024,026 [IMAGE AVAILABLE]

L22: 1 of 6

ABSTRACT:

Segmental grinding wheel for forming the tip of intersecting surfaces on tools includes an array of peripherally extending and circumferentially, spaced segments. Each segment includes first and second grit-coated angularly oriented grinding surfaces. Another array includes similar grinding segments which are interdigitated in alternating sequence with the segments of the first array. The segments of the two arrays are concentric and partially coextensive in the axial direction of the wheel so that the plane of rotation of the first grinding surface of each segment in one array intersects the plane of rotation of the second grinding surface of an adjacent segment in the other array along a line which represents the tip of the intersecting surfaces.

US PAT NO: 4,339,896 [IMAGE AVAILABLE]

L22: 2 of 6

ABSTRACT:

A method for dressing a grinding wheel, comprising the step of engaging the periphery of a rotating grinding wheel with a dressing tool composed at a positive back rake angle and optionally at a positive side rake

angle. The dressing tool is preferably comprised of a composite compact having a first layer of bonded abrasive crystals of diamond or CBN and a second layer of cemented tungsten carbide bonded to the first layer. The compact may be provided with a side cutting edge angle between 0.degree. and 90.degree. and an end edge cutting angle between 0.degree. and 45.degree..

US PAT NO: 4,300,522 [IMAGE AVAILABLE]

L22: 3 of 6

ABSTRACT:

A dresser tool comprises two composite compacts positioned to crush and shear the grinding wheel. Preferably one composite compact is arranged such that its working edge contacts the grinding wheel tangentially; and the other compact is placed so that its working edge is normal to the grinding wheel at a rake angle ranging from positive to negative.

US PAT NO: 4,180,048 [IMAGE AVAILABLE]

L22: 4 of 6

ABSTRACT:

An improved **cutting** **wheel** for dicing semiconductor wafers is described. The cutting blade of the wheel is a thin disc consisting of finely divided abrasive particles embedded in a nickel matrix. The surface of the nickel is overlaid with a thin layer of chromium which is electrolytically deposited on it. The cutting speed and useful life of the wheel are both increased by the presence of the chromium overlay.

US PAT NO: 3,886,925 [IMAGE AVAILABLE]

L22: 5 of 6

ABSTRACT:

An improved **cutting** **wheel** for dicing semi-conductor wafers in which a metal cutting disc with abrasive particles in a nickel matrix is held between a flange and a support ring with a body of elastomeric material compressed therebetween.

US PAT NO: 3,885,548 [IMAGE AVAILABLE]

L22: 6 of 6

ABSTRACT:

A **cutting** **wheel** for dicing semiconductor wafers having a thin cutting disc consisting of abrasive particles in a metal matrix bonded to a flange preformed on a hub and having a diameter larger than that of a flange, the hub having a shoulder extending axially from the flange, a flexible protective washer having a diameter greater than that of the cutting disc is fitted snugly on the hub and in close proximity to the cutting disc.